PROJECT NAVIGATOR, LTD.

December 21, 2000

Project No. 98-101

Mr. Mark Filippini
U.S. Environmental Protection Agency (EPA), Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Via E-mail and Mail

Transmittal
Workplan – Installation of Ground Water
Monitoring Wells GW-32 and GW-33, Revision 1
Waste Disposal, Inc. Superfund Site
Santa Fe Springs, California

Dear Mr. Filippini:

Enclosed please find the revised Workplan for the Installation of Ground Water Monitoring Wells GW-32 and GW-33 (Workplan) at the Waste Disposal, Inc. Superfund Site in Santa Fe Springs, California. The enclosed revision incorporates comments received from EPA at the December 19, 2000 Technical Exchange Meeting held in Santa Fe Springs, California. EPA's comments were compiled during its review of the version of the Workplan submitted to EPA on December 4, 2000.

As we agreed at the December 19, 2000 Technical Exchange Meeting, hard copies of the revised Workplan will be mailed only to Virginia Maloles of LAC DHS and to EPA. Two hard copies will be mailed to EPA.

As discussed during the Technical Exchange Meeting, we will consider the enclosed version of the Workplan final absent any indication from EPA to the contrary, given that EPA's comments have been addressed in full.

The WDIG plans to implement the Workplan during mid-January, 2001. We will forward the fieldwork schedule to EPA during the next two weeks, allowing for at least two weeks notice for EPA oversight personnel. As discussed previously, this schedule is necessary in order to include the two new ground water monitoring wells in the First Quarter 2001 ground water monitoring round. The WDIG appreciates EPA's help in approving this document expeditiously.

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If you have any questions or comments, please call at (714) 449-8922.

Very Truly Yours,

Roberto Puga, R.G.
WDIG Project Coordinator

Attachment

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Peter Janicki, CIWMB
Virginia Maloles, LAC DHS
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Customer-Focused Solutions

December 21, 2000 Project No. 94-256

Mr. Mark Filippini
U.S. Environmental Protection Agency
75 Hawthorne Street, SFD-8-B
San Francisco, California 94105-3901

Revision 1.0
Workplan - Installation of Ground Water
Monitoring Wells GW-32 and GW-33
Waste Disposal, Inc. Superfund Site

Dear Mr. Filippini:

1.0 INTRODUCTION AND BACKGROUND

1. EPA has expressed a recommendation that the Ground Water Monitoring Network for the Waste Disposal, Inc. (WDI) Superfund Site in Santa Fe Springs, California be augmented by the addition of two new monitoring wells. U.S. Environmental Protection Agency (EPA) rationale has been discussed in CDM Federal Programs Corporation (CDM Federal) Ground Water Data Evaluation Report, dated January 14, 1999, and at various Technical Exchange Meetings held between EPA and Waste Disposal, Inc. Group (WDIG).

2. WDIG has agreed to install and monitor the two additional wells, and include them in the Quarterly Ground Water Monitoring Program for the site (currently under review for modification by EPA). The two additional wells will be designated wells GW-32 and GW-33. Refer to Figure 1 for a location map.

3. The following sections describe the rationale and procedures for the installation of the additional wells. These sections have been revised to incorporate comments provided in EPA's letter dated December 18, 2000.

2.0 PROPOSED WELL LOCATIONS

1. GW-32 (upgradient monitoring well) will be installed in the western portion of the WDI site (near existing ground water monitoring well GW-01) to verify that volatile organic compound (VOC) detections on the southwestern side of the site, specifically tetrachloroethene (PCE) and trichloroethene (TCE), are sourced from an upgradient solvent release site(s). Typically, the chlorinated solvents are seen in the deeper zone as in GW-11 which is screened from 118 to 128 feet.

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2. GW-33 (downgradient monitoring well) will be installed to assess ground water conditions along the southeast perimeter of the buried concrete reservoir. It will be screened in the shallow zone. This well will be installed through the clay berm that forms the side of the buried reservoir. This location will minimize cross contamination problems that could occur if the well were installed through a waste zone.

3.0 WELL CONSTRUCTION

1. GW-32 and GW-33 will be drilled using an air-rotary drill rig. This work will be scheduled and coordinated with the high school located northeast of the site in order to minimize impacts on them. During drilling, grab samples will be collected at 5-foot intervals for visual observation and logging. The borings will be drilled to depths of 125 feet (GW-32) and 60 feet (GW-33). The borings will be drilled using the drill/drive technique. A 10-inch-diameter casing will be driven behind the drill bit to keep the boreholes open and to limit the potential for cross-contamination.

2. The boreholes will be logged according to the Unified Soil Classification System (USCS) by a field geologist working under the supervision of a California Registered Geologist or Engineer.

3. The existing site ground water monitoring wells, installed by EPA in 1988, have performed very well in terms of accessibility and ease in pumping. Therefore, the construction of the proposed wells GW-32 and -33 will follow the original specifications, as described below. The wells will be constructed using 4-inch-diameter, Schedule 40 polyvinyl chloride (PVC) flush-threaded casing with stainless steel centralizers placed at 30-foot intervals. The well screen will be selected based on field observations, but it is anticipated that it will consist of 0.020-inch slotted, Schedule 40, flush-threaded PVC casing.

4. The annulus of the screened zone will be filled via tremmie pipe with filter pack sand to 2 feet above the screened zone. The filter pack sand will be selected based on field observations, but it is anticipated that 2/12 filter pack sand will be used. A 3-foot-thick seal of hydrated 1/4-inch bentonite pellets will be placed over the sand filter, and Volclay™ grout will be used to fill the remainder of the annulus to the surface. The well heads will be constructed with flush-mounted surface completions, with a locking cap, and set in concrete. Well construction diagrams, showing details for monitoring wells GW-32 and -33, are shown in Figures 2 and 3.

5. The location and elevation of the new ground water monitoring wells will be surveyed by a California licensed land surveyor. Elevations will be referenced to mean sea level and will be accurate to within ± 0.01 foot.

4.0 WELL DEVELOPMENT

1. Following monitoring well construction, a minimum of 24 hours will be allowed prior to well development to permit well seal materials to set. Monitoring wells will be developed using a well development rig. Developing techniques will include swabbing with a surge block, followed by bailing water (and possibly more swabbing) until the water is relatively clear. A submersible pump will then be used to complete development. The pump rate will be dependent on the recharge rate of the water-bearing zone. A minimum of three well volumes will be removed during development. Well development will continue until:

    - Discharge water is relatively free of settled solids and consecutive individual readings of field parameters tested (i.e., pH, temperature and conductivity) are within 10 percent of each other.
    - Between three and ten purge volumes are removed.
    - Until the well dewaters.

5.0 MANAGEMENT OF GENERATED WASTE

1. Soil cuttings generated during drilling, as well as equipment decontamination activities, will be placed in 55-gallon Department of Transportation (DOT)-approved drums. The drums will be covered with lids and properly labeled. The drums will be placed on pallets, covered and stored onsite in a secure area. The contents of the drums can be handled by incorporation into the reservoir area subgrade during final remedy construction.

2. Water generated during well development, sampling and equipment decontamination will be discharged to the onsite Baker Tank currently storing ground water monitoring purge water.

6.0 GROUND WATER SAMPLING AND ANALYSES

1. Following development of the new monitoring wells, a complete round of sampling of the two wells will be performed as part of the regular quarterly ground water monitoring and pursuant to the procedures used for quarterly ground water monitoring. Thereafter, GW-32 and GW-33 will be included as part of future quarterly ground water monitoring activities. (Table 1).

2. The sampling and analysis will be carried out per Standard Operating Procedures (SOPs) D, E and F of the Quality Assurance Project Plan (QAPP)(TRC, 1997a) and the Field Sampling and Analysis Plan (TRC, 1997b).

WDIG anticipates to install and develop the monitoring wells between January 15 to 31, 2001, in order to include the wells in the First Quarter 2001 monitoring round. We will notify the agencies 2 weeks in advance when the installation schedule is finalized.

If you have any questions or comments, please call me at (949) 727-7356.

Sincerely,

Allen E. Blodgett, P.E.
Project Director

AEB/JB:rm
Enclosures

cc: Peter Janicki, CIWMB
Mike Finch, DTSC
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John Wondolleck, CDM Federal
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WDIG Members

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM WASTE DISPOSAL, INC. SUPERFUND SITE

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-01	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Upgradient background well needed to monitor and document the quality of ground water not affected by an onsite release.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-02	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Upgradient background well needed to monitor and document the quality of ground water not affected by an onsite release.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-03, -04, -31	Semiannually (2, 4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adjacent to reservoir; upgradient well GW-02 adequately monitors this area.

(1) Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

(2) Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

(3) General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-05, -06	Quarterly (1, 2, 3, 4) Semiannually (2,4)	EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	GW-05 adequately covered by GW-02; upgradient well GW-06 outside of waste zone.
GW-07	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Upgradient well; GW-07 outside of waste zone.
GW-08	Quarterly (1, 2, 3, 4) Semiannually (2,4)	EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-01 and -02.

[1] Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

[2] Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

[3] General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM WASTE DISPOSAL, INC. SUPERFUND SITE (Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-09	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Downgradient of GW-01 and-02; GW-11 adequately covers this area.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)			
GW-10	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Downgradient of GW-01 and -02; not located within waste zone; shallow well; GW-11 adequately covers this area.
GW-11	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	GW-11 has shown PCE and TCE exceedances.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	

(1) Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

(2) Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

(3) General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-13	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Point of compliance well needs to be monitored to detect potential release and impact to ground water from waste sources.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-14	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-13 and -15.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)			
GW-15	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Near-source detection well.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	

[1] Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

[2] Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

[3] General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-19	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Point of compliance well needs to be monitored to detect potential release and impact to ground water from waste sources.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-22	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Downgradient verification well ground water generally flows towards this well; monitoring of verification wells is needed to assure that Site contaminants (if present in ground water) does not migrate offsite and potentially impact private or municipal water supply wells.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-16	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-15.

[1] Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

[2] Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

[3] General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-18	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Point of compliance well needs to be monitored to detect potential release and impact to ground water from waste sources.
			Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-21	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Point of compliance well needs to be monitored to detect potential release and impact to ground water from waste sources.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-23	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-24.

[1] Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

[2] Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

[3] General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-24	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Downgradient verification well ground water generally flows towards this well; monitoring of verification wells is needed to assure that Site contamination (if present in ground water) does not migrate offsite and potentially impact private or municipal water supply wells.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)	Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-26, -27	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-15 and -19.
GW-28	Quarterly (1, 2, 3, 4)	EPA Method 8260A (Volatiles) Metals (Dissolved)	Annually (1)	General parameters[3] EPA Method 8260A (Volatiles) Metals (Dissolved) EPA Method 8270 (Semivolatiles)	Adequately covered by GW-19, -29 and -30.
	Semiannually (2,4)	EPA Method 8270 (Semivolatiles)			

[1] Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

[2] Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

[3] General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

TABLE 1

PROPOSED MODIFICATIONS TO THE GROUND WATER MONITORING PROGRAM
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

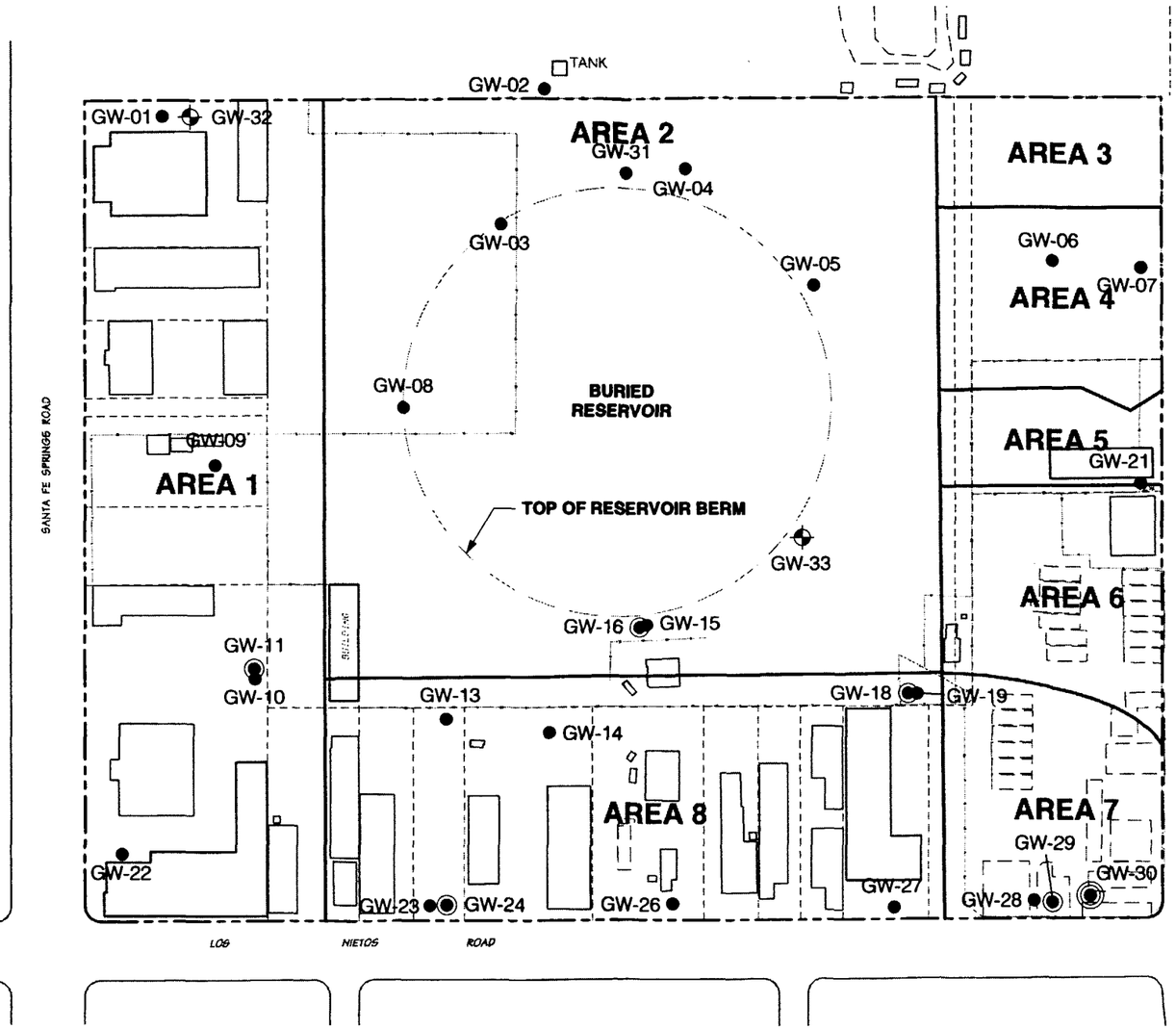
WELL I.D.[1]	CURRENT SAMPLING REQUIREMENTS		PROPOSED SAMPLING REQUIREMENTS		RATIONALE FOR MODIFICATIONS
	Sampling Frequency[2]	Laboratory Analysis	Sampling Frequency[2]	Laboratory Analysis	
GW-29	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Downgradient verification well ground water generally flows towards this well; monitoring of verification wells is needed to assure that Site contamination (if present in ground water) does not migrate offsite and potentially impact private or municipal water supply wells.
			Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-30	Semiannually (2,4)	EPA Method 8260A (Volatiles) EPA Method 8270 (Semivolatiles) Metals (Dissolved)	Quarterly (1, 2, 3, 4)	General parameters[3] EPA Method 8260A (Volatiles)	Downgradient verification well ground water generally flows towards this well; monitoring of verification wells is needed to assure that Site contamination (if present in ground water) does not migrate offsite and potentially impact private or municipal water supply wells.
			Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals (Dissolved)	
GW-32	Not Installed	Not Applicable	Quarterly (1, 2, 3, 4)	General parameters EPA Method 8260A (Volatiles)	Upgradient background well needed to monitor and document quality of ground water not affected by an onsite release.
			Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals Dissolved	
GW-33	Not Installed	Not Applicable	Quarterly (1, 2, 3, 4)	General parameters EPA Method 8260A (Volatiles)	Downgradient verification well ground water generally flows towards this well; monitoring of verification wells is needed to assure that Site contamination (if present in ground water) does not migrate offsite and potentially impact private or municipal water supply wells.
			Semiannually (2,4)	EPA Method 8270 (Semivolatiles) Metals Dissolved	

(1) Deep Well Numbers 12, 17, 20 and 25 were not drilled because deep penetration at ground water was not expected.

(2) Number within ( ) identifies the quarter during the year. First Quarter (1): January, February, March; Second Quarter (2): April, May, June; Third Quarter (3): July, August, September; Fourth Quarter (4): October, November, December.

(3) General parameters include chloride, sulfate, total organic carbon (TOC), pH and total dissolved solids (TDS).

94-256IGWMW-01 REV. 12/04/00



LEGEND

● GW-01	SHALLOW GROUND WATER MONITORING WELL
◉ GW-16	INTERMEDIATE GROUND WATER MONITORING WELL
◉ GW-30	DEEP GROUND WATER MONITORING WELL
⌖ GW-32	PROPOSED GROUND WATER MONITORING WELL
———	SITE BOUNDARY
———	AREA BOUNDARY
	FENCE
▭	EXISTING BUILDING

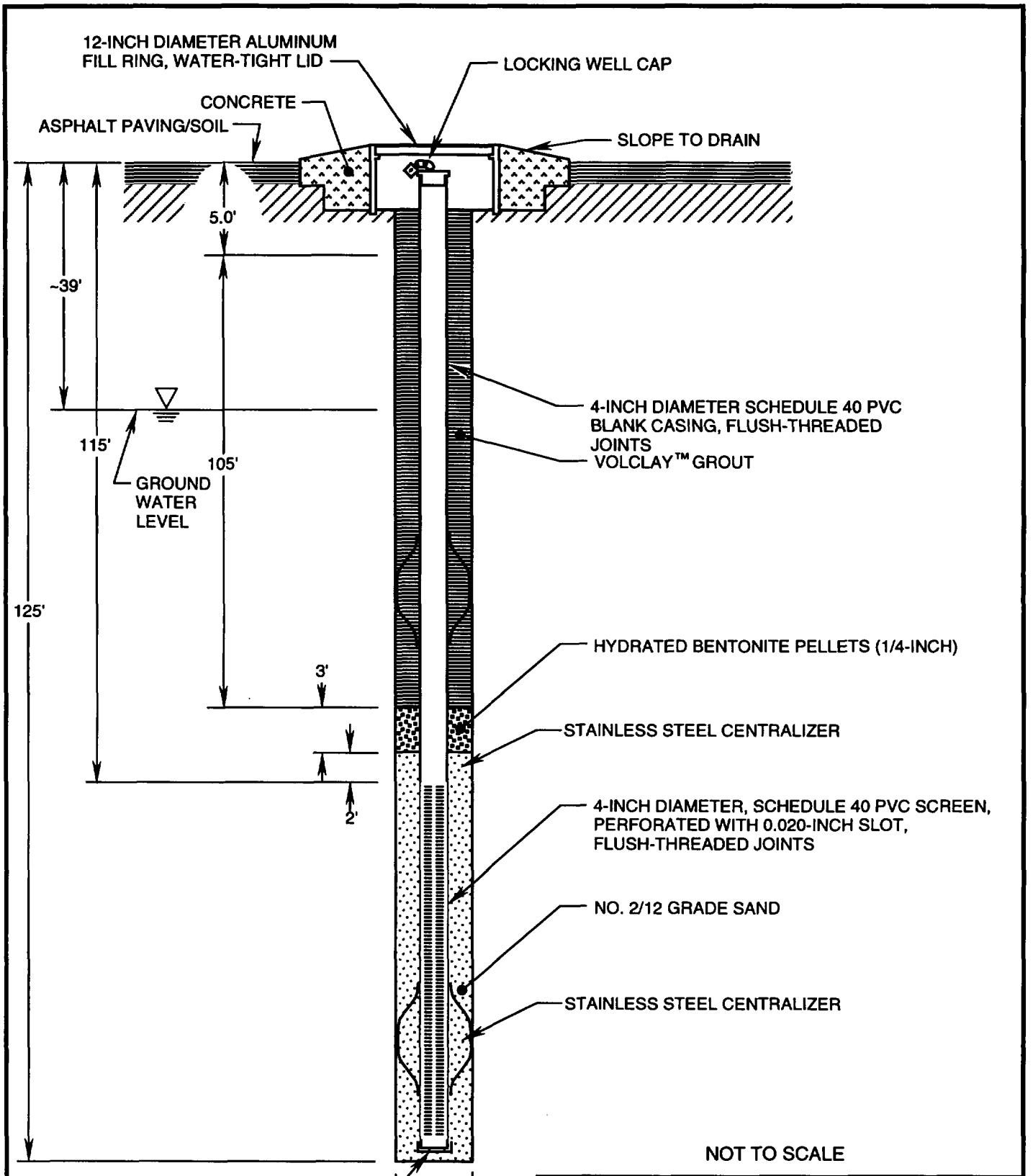
0 200 400 FEET
SCALE

EXISTING AND PROPOSED GROUND WATER MONITORING WELL LOCATIONS

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC | **FIGURE 1**

94-256IGWMW-03 REV 12/21/00



NOT TO SCALE

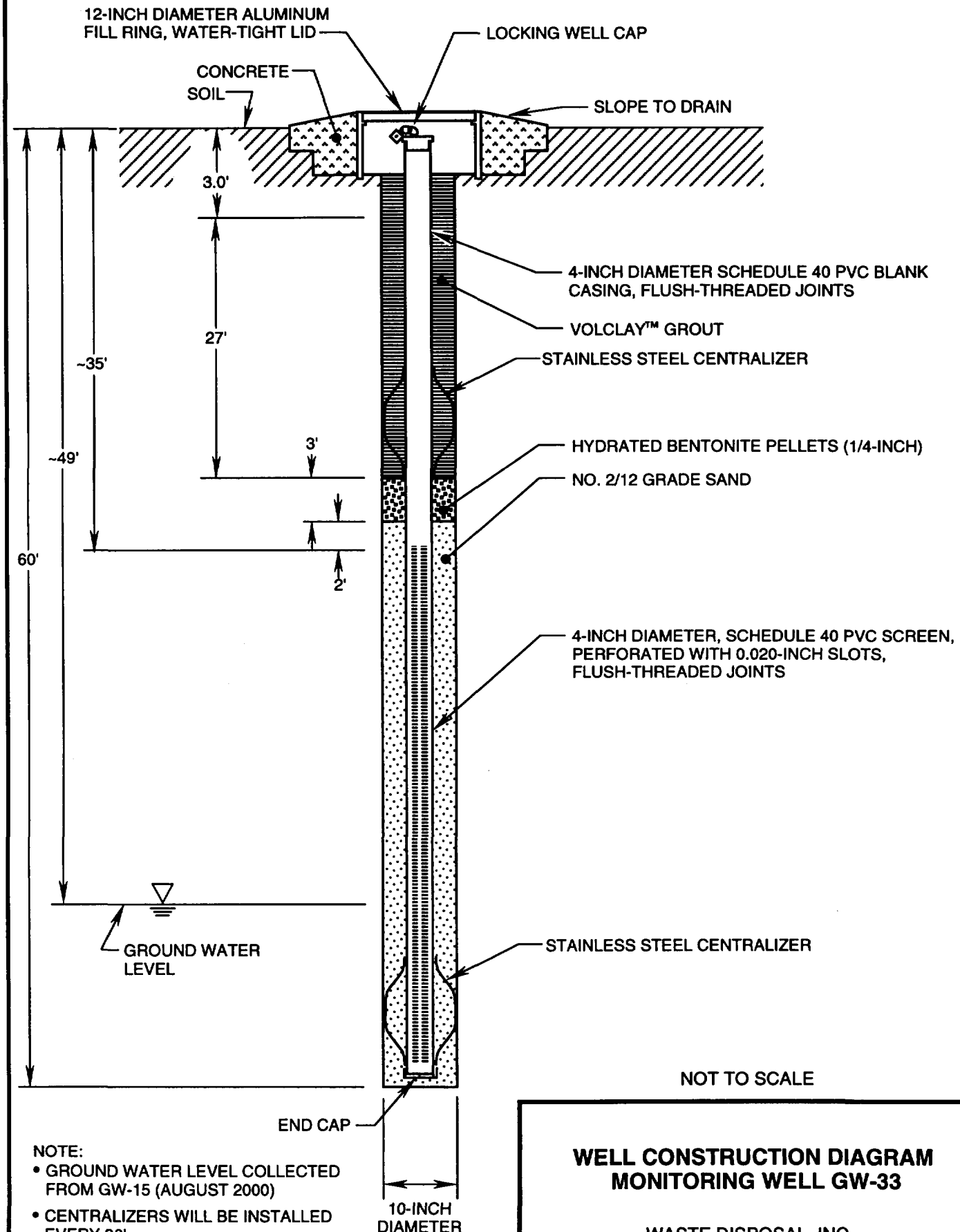
NOTE:
- GROUND WATER LEVEL COLLECTED FROM GW-01 (AUGUST 2000)
- CENTRALIZERS WILL BE INSTALLED EVERY 30'.
- WELL SUSPENDED OFF BOTTOM OF BOREHOLE.

WELL CONSTRUCTION DIAGRAM
MONITORING WELL GW-32

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC | **FIGURE 2**

94-256IGWMW-02 REV.12/21/00



NOT TO SCALE

NOTE:
- GROUND WATER LEVEL COLLECTED FROM GW-15 (AUGUST 2000)
- CENTRALIZERS WILL BE INSTALLED EVERY 30'.
- WELL SUSPENDED OFF BOTTOM OF BOREHOLE.

WELL CONSTRUCTION DIAGRAM
MONITORING WELL GW-33

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC | **FIGURE 3**

TRC

Customer-Focused Solutions

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